BRUHATH BANGALORE MAHANAGARA PALIKE

YALAHANKA ELECTRICAL DIVISION

E MEASUREMENT BOOK

Name of work:- - Providing Multi colour Shade lights at parks in ward no 03 & 04 of Yelahanka Sattelite Town Sub Division

BRUHATH BANGALORE MAHANAGARA PALIKE

Yalahanka ELECTRICAL DIVISION

PRE MEASUREMENT BOOK

Name of work:-Providing Multi colour Shade lights at parks in ward no 03 & 04 of Yelahanka Sattelite Town Sub Division

Name of Contractror of nature of Agency:- Sri.VinayKumar M;M/s Vinay Enterprises

Job Code No:- 004-20-000037

Ref no and Date of commencement of work:-:-BBMP/EE/YNK.D/EPMT-5/W.O/000211/2020-21 Date 12/01/2021

Measurement Book No: **Page No:**

Bill NO :- 1st & Final Bill

Sl. No.	Description of item		Unit	Present Measurements		
				Qty	Tender Full Rate	Cost
1	Supply,Installation,TestingandCommissioningofLEDRGB/RGBWfloodlightingluminaireforfacadelightingwithDie-castaluminiumhousing, powder-coatedfinish,offollowingwattage.Luminaireshallbecapableofproducingdynamiccolorchanginglightforwith16millioncolorsbyDMX/Ethernetbasedcontrol. Thebeamangleofthefittingshallbenarrow,medium,wideorasymmetricaspertherequirement.Luminaireshallbecompletewithdriverandcapableofoperatingatlinevoltagewithoutanyseparatepowersupplyfrom100-270VAC,50Hzwithpowerfactor>0.9.Fixtureshallbesuitabletooperateatanambienttemperaturerangeof-10°Cto+50°CandshallbeIP65andIK06rated.LifetimeshallbeatleastL70:50000burninghoursat50°C.LuminaireshallbeconformingtoBIS(IS10322)andshallbecompletewithallnecessaryaccessoriesrequiredforproperworkingoffixtureincludingweatherproofconnectioncables,waterproofconnectorsetc. as required.75 W		Nos	51	51411.49	2621985.99
	Starts from Seshadripuram school Double road Sandeep unikrishna road					
	P1	3				
	P2	3				
	P3	3				
	P4	3				
	P5	3				
	P6	3				
	P7	3				
	P8	3				
	P9	3				
	P10	3				
	P11	3				
	P12	3				
	P13	1				
	P14	1				
	P15	1				
	P17	1				
	P18	1				
	P19	1				
	P20	1				
	P21	1				
	P22	1				
	P23	1				
	P24	1				

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	P25	1				
	P26	3				
2		140 Watts	Nos	28	78691.78	2203369.84
	P1	2				
	P2	2				
	P3	2				
	P4	2				
	P5	2				
	P6	2				
	P7	2				
	P8	2				
	P9	2				
	P10	2				
	P11	2				
	P12	2				
	P16	1				
	P27	3				
3		30Watts	Nos	12	20999.93	251999.16
	P21	2				
	P22	2				
	P23	2				
	P24	2				
	P25	2				
	P26	2				
4	Supply, installation, testing and commissioning of booster amplifier with power handling of 250 to 300 watt RMS 4ohms Dual and 100/70 volt output on bridge mode single channel Rack mountable Specs: frequency response : 20 htz to 20khtz		No	0	28899.95	0.00
5	Supply, installation, testing and commissioning of 4 to 6 Channel 4 mic/line input mixer with 2/3 band semi parametric eq 2 bus and 2 aux 2 stereo return.		No	0	13427.20	0.00
6	Supply, installation, testing and commissioning of out door garden speaker fitted with wide response and water resistant polypropylene speaker components and strong aluminium alloy housing permits various outdoor application omni directional speakers IP 55 norms 40W/100 volt with taping of 40/20/10/5watts 88 db 160 Hz-16KHz Dimensions DIA 185mm x H765 mmfrequency response Preferable. Make : Ahuja/Eq		Nos.	0	18504.36	0.00
7	Supply and Instalation of Automatic Show time unit & programming		Nos.	1	31942.05	31942.05

8	Supply and Instalation of Master Controller The highlights of MasterLogic-200 PLC system are: • Powerful & Versatile CPU (high speed / memory, IEC programming etc) • Compact footprint (Rack room, cabinet space saver, shipping costs saver) • Modular options (power supply, range of I/O modules to suit your configuration) • Flexibility in module assignment – any module can be installed in any slot of any base without any restrictions. • Open networks (Fast Ethernet, UTP/Fiber-Optic, serial RS232C /422/485) • Open protocols (Profibus-DP, MODBUS ASCII/RTU/TCP) • Peer-to-Peer networks (Dedicated Fast Ethernet on UTP/Fiber-optic) • Simulation Environment to test control strategies without hardware or process connections. • Engineer-friendly software (Connection options, easy configuration &trouble-shooting) • Diagnostics (System/Error Logs, system monitoring, network monitoring,ping test, frame monitor) • Experion PKS & Experion HS Integ	Nos.	1	289649.88	289649.88
9	Supply and Instalation of DMX Splitter, DMX Input x1, Output x4, Thru x1, 3/16" Threaded Hole for Clamp, Opto-Isolated	Nos.	2	56320.81	112641.62
10	Supply and Instalation of custom computer or stand alone programmer for RGB lighting show	Set	1	185054.09	185054.09
11	Custom Smart Lighting Design and Programming Smart Lighting Design Project Consulting fee -	sequences	3	131819.44	395458.32
	Between Pole no 12 & 13				
	Total Rs				6092100.95
	PART B				
12	Supplying and drawing UTP-CAT 6E LAN cable.	Mtrs	720	30.42	21902.40

P1	24
P2	28
P3	28
P4	27
P5	28
P6	27
P7	25
P8	25
P9	44
P10	26
P11	25
P12	42
Panel & Control Panel	0
P13	26
P14	27
P15	26
P17	29
P18	25
P19	32
P20	26

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	P21	23				
	P22	26				
	P23	25				
	P24	26				
	P25	27				
	P26	27				
	P27	26				
13	Supplying, erecting, testing & commissioning of ON-LINE UPS system suitable for operation on 230V, 50Hz, A/C supply, with isolation transformer all accessories complete and Excluding batteries and wiring complete.3 KVA ON LINE UPS		Per Mtr	1	44561.52	44561.52
14	Supplying, installation, testing & commissioning of 12V DC, AH batteries in poly propylene container for U.P.S. Sealed maintenance free batteries.150 AH capacity		Nos	2	14790.90	29581.80
15	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete.16SWG		Sqcm	119750	0.346	41433.50
	130x100Cmsx2Sides	26000 Sqcm				
	50x130Cmsx4Sides	26000 Sqcm				
	50x100Cmsx3Sides	15000 Sqcm				
	100x115Cmsx2Sides	23000 Sqcm				
	50x100Cmsx2Sides	10000 Sqcm				
	50x115Cmsx3Sides	17250 Sqcm				
	50x50Cmsx1Sides	2500 Sqcm				
16	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint.40x40x6mm		Mtrs	198.00	267.50	52965.00
	Electrical Panel Board	5.30				
	DMXPanel Board	5.60				
	on top of the Pole Colour Light mounting Box frame frame each pole 27 Nosx4Mtrsx2	216.00				
17	Supplying heavy gauge PVC conduit pipe .....dia mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall / stone structure or rawl plugs in case of brick walls and cement plastering the damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.32mm dia 2.5mm thick		Mtrs	880	96.51	84928.80

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18	Supplying and drawing Flexible Multicore Cable manufactured with electrolytic grade flexible copper with low conductor confirming to IS:8130-1984 and (Virgin) PVC insulation sheathed suitable for working voltage upto 1100Volts **as per IS-694:1990 4C X 2.5Sq.mm**		Mtrs	1165	120.64	140545.60
	P1	45				
	P2	41				
	P3	42				
	P4	38				
	P5	44				
	P6	42				
	P7	43				
	P8	76				
	P9	40				
	P10	39				
	P11	78				
	P12	41				
	Panel & Control Panel	0				
	P13	45				
	P14	39				
	P15	41				
	P17	42				
	P18	38				
	P19	45				
	P20	45				
	P21	46				
	P22	43				
	P23	45				
	P24	41				
	P25	43				
	P26	42				
	P27	43				
19	Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 4 core 16 sqmm		Mtrs	675	157.35	106211.25
20	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.On wall /Structure 6 sqmm to 16 sqmm		Mtrs	675	12.46	8410.50
	P1	23				
	P2	23				
	P3	22				
	P4	24				
	P5	24				
	P6	23				
	P7	22				
	P8	52				
	P9	24				

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	P10	23				
	P11	46				
	P12	23				
	Panel & Control Panel	0				
	P13	22				
	P14	23				
	P15	22				
	P17	24				
	P18	22				
	P19	30				
	P20	26				
	P21	24				
	P22	25				
	P23	24				
	P24	27				
	P25	26				
	P26	27				
	P27	25				
21	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc.,complete.(As per Civil SR KSRB I-2, P-7)In soil (ordinary)		Mtrs	351	79.72	27981.72
22	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.35 sqmm Long Barrel		Nos	700	13.05	9135.00
23	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. (Icu = Ics) THREE POLE 100Amps25kA.		Nos	2	4242.16	8484.32
		Total Part B				576141.41
		EXTRA ITEMS (EIRL)				
24	Fabricating, supplying and erection of ...Mtrs long hot dip **Galvanized Octagonal pole** with BSEN 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangements, including suitable boards, Bakelite sheet and MCBs as per IS specifications suitable to withstand the wind speed of 47 m/sec for .....Mtrs pole in single section and single joint welded as per IS 9595/IS 10178AWS having dimensions bottom .....mm, top....mm with 3mm thick, suitable base plate and 4Nos of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65micron as per ASTM-A123 and 153 etc., (excluding foundation) as per drawing appended. 5 meters - Top 70mm and bottom 130mm dia		Nos	27	7651.00	206577.00
	In the Median Starts from Seshadripuram school Double road Sandeep unikrishna road					

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25	Providing Rcc Pole pedstal of Size 0.3x0.3x1.2 Mtrs Including digging of pit, tor steel,templates ,Centring,1;4;8 base concrete,1;2;4 pedestal concrete and etc coplete as per the data sheet enclosed	Set	27	1695.00	45765.00
26	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.6-32Amps SP	Each	27	434	11718.00
27	Supplying, fixing and wiring Earth Leakage Miniature Circuit Breaker **(ELMCB)** 240/450V up to 300mA sensitivity on existing wood/panel board.32-40 Amps 4 pole	Each	2	2800	5600.00
28	Supply and Installation / Fixing / Provision of Pole box with HRC Fuse / MCB provision and suitable connector / terminal for 3 Ph / 1 Ph connections with Loop-In & Loop- Out terminals for 10 Sqmm / 25 Sqmm 3.5 C Al/Ar / Cu/ Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC Insulated cable, enclosed in a Thermoplastic, Polystyrene enclosure, which should be shock proof, safe, IP65(Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and/or grommets.260mmx210mmx116mm	Each	27	2054	55458.00
29	Supplying and fixing Microprocessor Based Astronomical timer Switch with using necessary bolts, nuts and washers.	Each	1	4030.00	4030.00
30	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947.100 to 125Amps	Each	1	7200	7200.00
31	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 12 mm dia	No	1	2999.70	2999.70
		Total Rs				339347.70
		Add GST 12% on Total				40721.72
		Total Rs				380069.42
		Approved Rates				

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32	Supply,Installation,TestingandCommissioningofLEDRGB/RGBW LinearWallWasherluminaireforFacadelightingwithaluminiumextru dedhousing,offollowingwattage.Luminaireshallbecapableofprodu cingdynamiccolorchanginglightwith16millioncolorsbyDMX/Ethern etbasedcontrol.Thebeamangleofthefittingshallbenarrow,medium, wideorasymmetricasperthe requirement.Luminaireshallbecomplet ewithdriverandcapableofoperatingatlinevoltagewithoutanyseparat epowersupplyfrom100to270VAC,50Hz,powerfactor>0.9.Fixturesh allbesuitabletooperateatambienttemperaturerangeof-10°Cto+50°CandshallbeIP65andIK06rated.Lifetimeshouldbeatlea stL70:50000burninghoursat50°C.LuminaireshallbeconformingtoB ISandshallbecompletewithallnecessaryaccessoriesrequiredforpro perworkingoffixtureincludingweatherproofconnectioncables,water proofconnectors etc. as required 70 watts		8	54100.00	432800.00
	P13	2				
	P14	2				
	P15	2				
	P16	2				
33	Supply,Installation,TestingandCommissioningofLEDRGB/RGBW LinearWallWasherluminaireforFacadelightingwithaluminiumextru dedhousing,offollowingwattage.Luminaireshallbecapableofprodu cingdynamiccolorchanginglightwith16millioncolorsbyDMX/Ethern etbasedcontrol.Thebeamangleofthefittingshallbenarrow,medium, wideorasymmetricasperthe requirement.Luminaireshallbecomplet ewithdriverandcapableofoperatingatlinevoltagewithoutanyseparat epowersupplyfrom100to270VAC,50Hz,powerfactor>0.9.Fixturesh allbesuitabletooperateatambienttemperaturerangeof-10°Cto+50°CandshallbeIP65andIK06rated.Lifetimeshouldbeatlea stL70:50000burninghoursat50°C.LuminaireshallbeconformingtoB ISandshallbecompletewithallnecessaryaccessoriesrequiredforpro perworkingoffixtureincludingweatherproofconnectioncables,water proofconnectors etc. as required 40 Watts		8	39050.00	312400.00
	P17	2				
	P18	2				
	P19	2				
	P20	2				
	E I R L Total					1125269.42
	PART B TOTAL					576141.41
	PART A TOTAL					6092100.95
	Add GST 12% on part B only					69136.97
	Grand Total Rs					**7862648.75**

CERTIFICATE:

1. This is certify that the work done is saticefactorily.
2. This is certify that the bill amount calimed in this bill Has not claimed in any of the previous bills.

Junior Engineer(Elec)
Yalahanka Division

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Asst.Exe.Engineer(Elec)
Yalahanka Division